

5

ABSTRACT OF THE DISCLOSURE

Methods and apparatus for ultrasonically scanning cylinders are provided. The methods and apparatus employ as few as one ultrasonic sensor for full immersion scanning and defect detection. Self-centering fixturing spins the cylinder, reducing vibration, allowing for fast ultrasonic scans. To create the 45 degree angle beam shear waves for the circumferential scans, the ultrasonic sensor is offset from the centerline of the cylinder, creating the correct angle for excitation of the shear wave.

10

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